DOCUMENT RESUME

ED 458 059 RC 023 177

AUTHOR Padilla, Raymond V.
TITLE Chicana/o College Students: Focus on Success.
INSTITUTION Hispanic Association of Colleges and Universities, San Antonio, TX.
SPONS AGENCY Kellogg Foundation, Battle Creek, MI.
PUB DATE 2001-00-00
NOTE 15p.
AVAILABLE FROM For full text: http://www.Hacu.net/sponsors/NICHE/pdf/padilla2.pdf.
PUB TYPE Reports - Descriptive (141)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Persistence; *College Environment; *College Students; Disadvantaged Youth; Higher Education; *Hispanic American Students; Models; *Qualitative Research; Research Methodology; Student Adjustment; *Student College Relationship; Success
IDENTIFIERS Chicanos

ABSTRACT

A new approach has been proposed to increase the success of Chicana/o students in college. Rather than studying only students who leave college without completing their degrees, the new approach focuses on those students who succeed in college by completing their programs of study. The campus experience for students is conceived as a "black box" in which students who enter the black box with varying characteristics and experiences leave the black box either with a degree or as dropouts. What accounts for the difference is the students' ability to avoid or overcome the barriers to degree attainment present on their campus. Students who are successful develop expertise sufficient to overcome the barriers to success. Such expertise entails both theoretical and heuristic knowledge relevant to the barriers. By taking appropriate actions based on this expertise, the students are able to successfully complete their programs of study. By implementing a qualitative survey on a given campus, a local model of successful students can be developed that describes the local barriers to student success, the expertise required to overcome them, the actions that successful students take, the actions that the institution might take to help students overcome the barriers more easily, and the likely unintended consequences that may result from those actions. (Contains 29 references.) (TD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 458 059

Chicana/o College Students: Focus on Success

HACU

HISPANIC ASSOCIATION OF COLLEGES & UNIVERSITIES

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Raymond V. Padilla

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Prepared for the Hispanic Association of Colleges and Universities

By Raymond V. Padilla, Ph.D.

RC 023177

BEST COPY AVAILABLE

Foreword

This report entitled *Chicana/o College Students; Focus on Success, 1989-1998*, by Raymond Padilla, Ph.D. is one of a series commissioned by the Hispanic Association of Colleges and Universities (HACU). Leading experts on Hispanic education were identified by HACU to develop papers that describe practices for promoting Hispanic success in higher education. This paper was part of a larger project funded in part by the W. K. Kellogg Foundation, whose goal is to create and identify methods for sharing information about educational policies and innovative programs that can best meet the higher education needs of Hispanic Americans.

The thoughts expressed in these papers are not necessarily the opinions of HACU or the W. K. Kellogg Foundation. These reports are intended to focus attention on these issues and spur further papers that will help us understand and address the complex problems affecting the education of Hispanic Americans today; however, they should not be assumed to the definitive work in their respective areas. For comments or questions concerning the contents of this paper please contact the author:

Raymond V. Padilla
Department of Chicana/o Studies
Arizona State University
Tempe, Arizona 85287-2002
(602) 965-8473
Raymond.Padilla@asu.edu

HACU GOVERNING BOARD

Piedad F. Robertson, *Chair*
President
Santa Monica College

Steven F. Arvizu, *Vice-Chair*
President
Oxnard College

Ruth Burgos-Sasscer, *Secretary*
Chancellor
Houston Community College System

Ricardo R. Fernandez, *past-chair*
President
Herbert H. Lehman College
City University of New York

John C. Guerra, *Treasurer*
Vice President
Corporate Affairs
AT&T

Raydean Acevedo
President
Research Management
Consultants, Inc

Tomas A. Arciniega
President
California State University,
Bakersfield

Max Castillo
President
University of Houston
Downtown

Alexander Gonzalez
President
California State University,
San Marcos

Tito Guerrero, III
President
The University of Southern
Colorado

Pablo A. Longoria Treviño
Rector
Universidad Regiomontana

Sally Mahoney
President
Our Lady of the Lake University

Norman I. Maldonado
President
University of Puerto Rico

Ted Martinez, Jr.
President
Grossmont College

Selimo C. Rael
President
New Mexico Highlands
University

Zaida Vega Lugo
Chancellor
Inter American University of Puerto
Rico
Arecibo Campus

Jose A. Vicente
President
Miami-Dade Community
College
Inter American Campus

Ex-Officio Member:
Antonio R. Flores
President of HACU

HACU National Headquarters • 8415 Datapoint Dr., Suite 400 • San Antonio, TX 78229
(210) 692-3805 • (210) 692-0823, fax • ***www.hacu.net***

Introduction

During the activist decade of the 1960s and the early 1970s, the low representation of Chicana and Chicano students in the nation's colleges and universities began to attract serious attention at the state and national levels (Romano-V., 1973; Rosales, 1996). As a population that had been historically marginalized in the educational system, first through de jure and later through de facto school segregation, Chicanos had virtually no access to postsecondary institutions during the first half of the twentieth century, and they were fortunate even to graduate from high school (Carter, 1970; Johnson & Hernández-M., 1970). The Chicano Movement of the 1960s was a concerted effort by the Chicano community to change this negative situation and, among other things, to increase access for Chicanos to the vast system of higher education institutions in the United States (Chicano Coordinating Council on Higher Education, 1969).

After more than a quarter century of efforts to reform the system of higher education, and specifically to increase opportunities for Chicano students in colleges and universities, much has been learned about issues related to access, persistence, degree attainment, and the reform process itself (Aguirre & Martinez, 1993; Justíz, Wilson, & Björk, 1994; Odell & Mock, 1989; Olivas, 1986). For example, there is now clear evidence that the "educational pipeline," i.e., the system of education from kindergarten to graduate school, is substantially leaky for Chicano students (Astin, 1982; Carter & Wilson, 1997). The transitions from junior high school to high school and from high school to college are particularly troublesome and lead to substantial numbers of Chicano students leaving school prematurely (Durán, 1983). We also know that once Chicano students enroll in college, they are more likely than majority students to leave college without completing a degree. This phenomenon of premature student departure from college affects all students and has received considerable attention in the research literature (Nora, 1987; Tinto, 1993). In spite of such efforts, however, overall persistence rates for college students have remained remarkably stable over many decades.

Another significant insight that has been gained from the research literature is the importance of focusing on successful students if one is to increase the success rate of Chicano students in college (Padilla et al., 1997). While it is necessary to understand why some students fail to complete their programs of study so that students and institutions can be told what to avoid, it is crucial to understand what accounts for students' success when they do complete a degree program so that students and institutions can be told what to do. This paper summarizes the results of research efforts spanning more than a decade that focused on successful Chicano and other minority students. The presentation consists of three main parts: (1) the conceptual and theoretical framework for studying successful students, (2) a summary of results from research using this approach, and (3) a detailed discussion of the research methods utilized so that others will be able to use a similar approach to increase Chicano student success at their own institutions.

Conceptualizing Student Success in College

Why is it that some students succeed in completing a college degree while others do not? Why is it that students at a particular institution obtain a degree while some of their peers do not? Previous research has shown that completing a college degree is a complex process involving

many factors, including personal and institutional characteristics, family background, economics, precollege educational achievement, student motivation, and the quality of effort exerted in pursuing a degree (Pace, 1980; Tinto, 1993). Tinto (1998) also has argued that students must be integrated academically and socially into the campus culture if they are to be successful, while Rendón (1994) calls for the validation of students' experiential knowledge as a way to provide them with a positive learning environment on campus where new knowledge can be acquired. So in the general case it would appear that successful college students are those who are academically talented, are supported in their quest for a college degree, exhibit a high level of motivation and commitment to their educational goals, exert a quality effort in their studies, and make themselves at home in the academic and social cultures of the campus where their previous knowledge and experiences are valued and enlarged.

This prototype of student success in college may well apply to some students who are advantaged in multiple ways, but what about the many other students who manage to gain access to college but are not so advantaged? Many college students come from economically disadvantaged homes, have been discouraged by teachers and counselors from pursuing a college education, find that the campus can be an alienating environment, and encounter many personal and institutional obstacles to degree completion (Attinasi, 1986; Lowe, 1989; Melchior-Walsh, 1994). What accounts for the success of some of these students (Gándara, 1995)? More specifically, what accounts for the success of such students at a particular institution?

The last question points to the fact that students experience failure or success at a particular campus and even in a particular program of that campus. It is also the case that college faculty and administrators are most likely to be concerned about enhancing student success on their own campus. General notions about student success derived from studying markedly different institutions across diverse contexts may have some value as a general orientation to practice, but they do not provide specific knowledge that is applicable to a given campus at some particular time, much less to particular populations or programs within a given institution. If particularity is to be favored over generality in the interest of improving practice, then a new approach to the study of college student success is needed. The following discussion presents such an approach based on the concept of a "black box," the idea of expertise as seen through expert systems thinking and the application of concept modeling techniques.

The Campus Experience: A Black Box

There are many phenomena that can be conceived as involving something going in (the input), something coming out (the output), and something happening in between. When the inputs and the outputs are fairly clear but the in between processes are understood little or not at all, then the in between processes can be considered as a "black box" where certain inputs go in and certain outputs come out (Bothamley, 1993, p. 59). The advantage of the black box approach is that we can begin to study some phenomena without having much knowledge about what is actually going on as inputs are transformed into outputs. In the case of college student success, we can characterize in great detail the background and experiences that college students bring to the campus. We can also describe in great detail the profiles of students who leave college without obtaining a degree, as well as the profiles of those students who do complete their programs of study. What we do not know is how students arriving at a particular campus are transformed over

time into either successful or unsuccessful students in terms of degree attainment. Figure 1 illustrates the black box conception of college student success and nonsuccess.

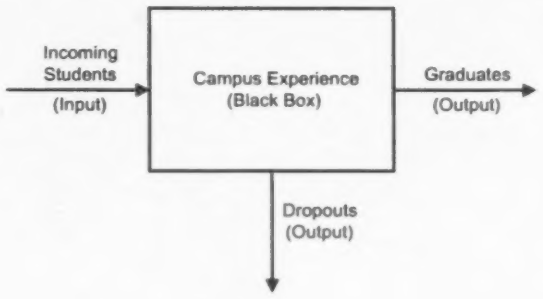

Figure 1. A black box conceptualization of the student experience on campus.

What Figure 1 clearly shows is that students arrive at any campus with a wide range of background characteristics, interests, commitments, goals, etc., and join an equally diverse range of potential academic experiences that are determined by type of institution, choice of major, social and academic cultures, etc. There are only two possible outcomes for each of the entering students. They either successfully complete some program of study and attain a degree, or they depart from the institution prematurely without completing a degree program. What happens between these two temporal points, i.e., entering and leaving college, is the black box experience. What is it in the black box experience that determines whether a given student on a particular campus exits college through the graduate or through the dropout output channel?

A Geography of Barriers

This question can be answered empirically if a simplifying assumption is made about the black box campus experience. We can assume that the campus experience for most students represents a geography of obstacles or barriers that must be overcome by the student in order to attain a college degree (Attinasi, 1986). When these barriers are successfully overcome, the student exits college through the graduate output channel and is therefore considered successful. When the student is unable to overcome the campus barriers, the student exits college through the dropout channel and is formally considered unsuccessful. Clearly, some of the barriers posed by a campus may be faced by many, if not all, students, and other barriers may be faced by only a few of them, i.e., not every student faces every possible barrier on a given campus. Moreover, student success depends on the salience of each individual barrier for a given student and that student's ability to overcome a particular configuration of barriers on a given campus. The salience of specific barriers for individual students on a given campus can be expected to vary from irrelevant to highly relevant, while the configuration of barriers can be expected to be highly variable across students, and perhaps to be virtually unique for each student. Figure 2 shows an abstract representation of the geography of barriers that is assumed to be present on all college campuses. Given that not all students on a particular campus are successful in overcoming campus barriers to the extent that they complete a degree program, what might account for the difference in outcome between successful and unsuccessful students?

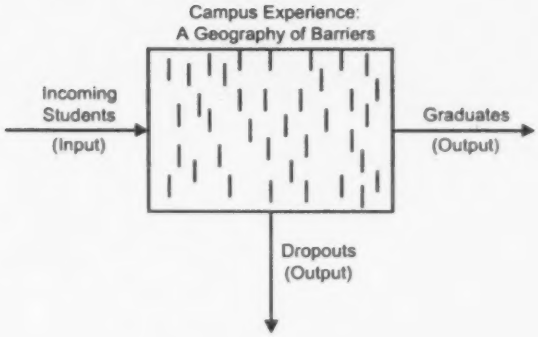

Figure 2. The campus experience conceptualized as a geography of barriers that must be overcome by successful students.

Expertise in Negotiating Barriers

We may be able to answer this question if we further assume that successful students take effective actions to overcome each specific barrier that they face and that such actions are based on specific knowledge that is relevant to the problem at hand. In short, successful students possess expert knowledge about campus barriers that allows them to take effective action to avoid or overcome those barriers. Following Harmon and King (1985), with further elaborations by Padilla (1991a) and Padilla et al. (1997), the student as expert in being a student can be conceptualized as possessing compiled knowledge that consists of two distinct knowledge components: theoretical knowledge and heuristic knowledge (see Figure 3).

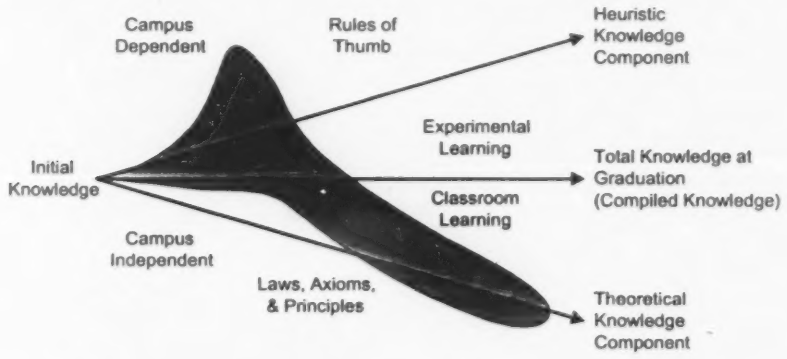

Figure 3. A conceptualization of expertise as related to students' ability to overcome the geography of barriers present on their campus. Students must acquire both theoretical and heuristic knowledge, which is largely locally determined, in order to be able to take effective actions to overcome barriers. The gray area shows a possible distribution in the acquisition of theoretical and heuristic knowledge over time.

Theoretical knowledge is mostly book knowledge that is learned through coursework and formal study, whereas heuristic knowledge is locally given and is acquired experientially in situ. When

students arrive on campus (the input channel), they bring with them a certain amount of theoretical and heuristic knowledge based on prior study and experience. As they engage the campus environment (the black box and its geography of barriers), they must put to use both theoretical and heuristic knowledge in order to overcome the configuration of barriers specific to that campus that each student experiences individually. If the level of theoretical or heuristic knowledge is insufficient for a student to overcome a particular barrier, then the student must acquire such knowledge in time to take action to overcome the barrier. If the student is unable to do so, then the barrier will not be overcome and thus will predispose the student to premature departure from college. If the student fails to overcome a sufficient number of barriers, then most likely that student will drop out of college. But if the student is able to develop the proper expertise in a timely fashion and take appropriate actions to overcome barriers, the student will attain a degree. Thus, overcoming campus barriers can be seen as a time sensitive learning process that joins the acquisition of theoretical and heuristic knowledge with action on the spot by the student. Moreover, the black box approach, coupled with a few initial assumptions as noted above, provides a general model for student success in college that can be applied to particular colleges to develop local models of college student success. Such local models of student success can be used to influence both institutional practices and student behavior in an effort to increase the overall rate of student success for that campus (Padilla et al., 1997).

An Example of a Local Model of Successful Students

A minimal local model of successful students attempts to identify and analyze the following aspects of the geography of barriers for a specific campus: (1) the set of barriers to student success that is perceived by a given group of participants on the given campus, (2) the knowledge that successful students collectively possess that allows them to overcome the identified barriers, and (3) the set of behaviors collectively exhibited, and the actions taken, by successful students to overcome the identified barriers. An extended local model would add the following two components: (4) the set of actions that the institution might take to help students overcome the identified barriers, and (5) the problems or unintended consequences that might result if the institution actually implemented the recommended actions. The last two items are constructed from the perspective of the group being studied. The extended local model thus can be used to encourage both student and institutional behaviors that are in support of improving student college success at a specific campus.

Padilla et al. (1997) developed a minimal local model of successful minority students at a large public university in the Southwest (see Figure 4). As shown in Figure 4, for the student group studied and the given campus, the barriers that these students must overcome in order to be successful can be grouped into four classes or types: (1) discontinuity barriers, (2) barriers that are experienced as lack of nurturing, (3) barriers related to a lack of presence on campus, and (4) resource barriers. Examples of the discontinuity barriers include the transition from a small town to an urban setting, students having to learn to be on their own, and difficulty in coming to terms with choosing between the value of an immediate job and the long term value of gaining an education. Examples of barriers related to a felt lack of nurturing on campus include lack of minority role models, perceived low expectations of students by faculty and staff, lack of family support or understanding, and outright lack of nurturing itself. In a related fashion, examples of lack of presence barriers include racial isolation, lack of minority role models and mentors,

cultural isolation, lack of visibility of minority support programs, and lack of minority issues or materials in the curriculum. Finally, examples of resource barriers include lack of money and problems with the financial aid system.

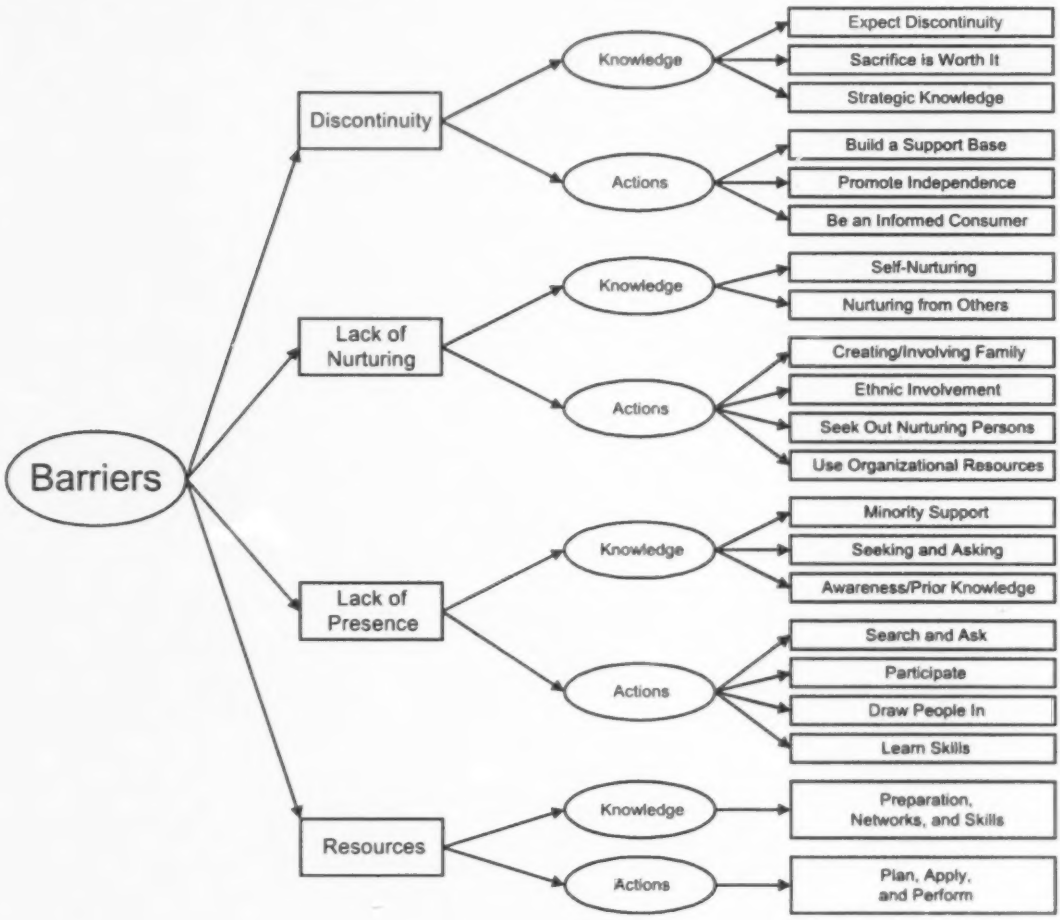

Figure 4. Local model of successful minority students (those completing their degrees) in a large public university in the Southwest based on the local geography of barriers for the groups studied, the knowledge that successful students possess, and the actions that they take to overcome them.

For each of the barriers identified, a successful student possesses heuristic knowledge that helps that student to understand the nature of the barrier and the possible solutions to it for the particular campus studied. Based on that knowledge, the successful student then takes effective actions to overcome the barrier. Thus, for the entire set of barriers as identified by a particular group of students for a specific campus at some given time frame, there exists a corpus of knowledge and a repertoire of behaviors that allow successful students to overcome the barriers to degree attainment. For example, as shown in Figure 4, the discontinuity barriers entail

knowledge that can be organized into three types or classes: (1) expectational knowledge ("expect discontinuity") acquired before the student arrives on campus that alerts the student to the presence of the barriers, (2) contextualizing knowledge ("the sacrifice is worth it") which allows the student to place the barriers into a proper perspective, and (3) forward looking knowledge ("strategic knowledge") that allows the student to develop specific strategies to overcome the discontinuity barriers. Likewise, the actions that successful students take to overcome discontinuity barriers in the campus studied can be classified into three types: (1) actions designed to build a support base, (2) actions that promote independence, and (3) actions to become an informed consumer of educational services. It is possible to expand the model shown in Figure 4 to provide the specific exemplars of each knowledge and action type, which can serve as specific guides for students and student affairs professionals at the institution studied. The model shown in Figure 4 also demonstrates how the content and the structure of the corpus of knowledge and the behavioral repertoire of successful students can be analytically determined using data acquired with the qualitative research methods described below.

The Qualitative Survey

The method used to construct local models of successful college students, based on the conceptual framework described above, relies on qualitative research concepts and techniques and might well be called a "qualitative survey." A qualitative survey consists of a set of qualitative data acquisition and analysis techniques that, when applied to a local social situation, result in an understanding of that situation based on the emic perspectives of participants in that situation as well as the interpretation of the situation by the investigator. The understanding derived from a qualitative survey is inductively developed and applicable to the local situation being studied. Thus, it is time, context, and participant bound. It is time bound because the situation may change from moment to moment (or year to year, etc.); it is context bound because the situation occurs in a specific geographical location, with a particular history, and therefore with a particular set of alternative futures; and it is participant bound because the intentions, motives, interests, goals, etc., of the participants depend upon a specific set of actors. A qualitative survey can be implemented by developing a data collection instrument and procedure, an appropriate sample of participants, and a qualitative analytic strategy. In the situation involving successful college students, these implementation requirements take the specific form of (1) the unfolding data matrix, (2) tandem groups of participants organized into dialogical groups, and (3) concept modeling as the analytic strategy for developing the local model of college student success.

The Unfolding Matrix

The data acquisition instrument for a qualitative survey is the unfolding matrix (see Figure 5). The unfolding matrix (Padilla, 1994) is so named because it starts out as a single leading construct derived from a given understanding of the local situation. In the situation involving successful college students, the leading construct is barriers to successful attainment of a college degree for a given campus and group of students. From this leading construct, the matrix unfolds in two ways. It unfolds vertically when the leading construct is exemplified exhaustively for the local situation based on the emic perspectives of participants in the situation. In the case of

successful students, the matrix unfolds vertically to include exhaustively the examples of barriers to degree attainment for the target campus and students. This idea is similar to Spradley's (1979) field notion of a "cover term" which is exhaustively glossed by interviewing native informants.

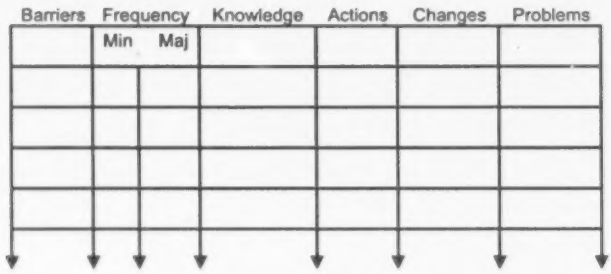

Figure 5. Unfolded matrix for assessing the heuristic knowledge of successful college students. The columns labeled "Barriers," "Knowledge," and "Actions" provide data sufficient for developing a minimal local model of successful students. The other columns can be used to develop an extended local model.

The matrix also unfolds horizontally by adding columns following the lead construct. Each column is labeled with a construct that elaborates some feature of the lead construct. In the case of successful college students, the feature constructs include the salience of each barrier as determined by its frequency for minority and majority students, the knowledge that successful students possess to overcome each barrier, the actions that successful students take to overcome each barrier, the changes that the participants recommend for the institution to make it easier for students to overcome each barrier, and finally the problems or unintended consequences that might result if the changes were actually implemented by the institution. With the data gathered by such a matrix, an extended local model of student success can be elaborated. Clearly, the unfolding matrix procedure can be generalized to other social situations with proper modification of the lead and features constructs. Note that while the matrix cover terms are given a priori, the bottom of the matrix is left open ended so that exemplars of the lead and features constructs can be gathered exhaustively.

Dialogical Groups

In a qualitative survey, it is theoretically possible that one very well-informed participant or native informant could exhaustively fill all the cells of the unfolding matrix. However, this is highly unlikely in practice, and certainly not the case for successful college students, so that in applied work it is better to assemble small groups of participants who are selected to cover as completely as possible the range of experiences likely to exist for the focal group in the target situation. The groups are relatively small, ranging from five to ten members, so that each participant has an opportunity to make a contribution. The intent is to use the empty matrix as a stimulus object (Freire, 1971) to encourage the participants to dialogue with one another and the session moderator about their experiences in dealing with the phenomena indicated by the cover terms. The information provided by such a dialogue is captured systematically by the session moderator or an assistant in the cells of the unfolding matrix.

Tandem group dialogues have been used in prior research because of the intensity of the dialogical interaction and the extensiveness of the matrix. For the matrix involving successful college students, three small groups of participants were interviewed in series, each group making its contributions in about an hour's time then followed by the next group. In tandem group dialogues, each group completes only a part of the matrix. The completed matrix provides the data set which is then analyzed to elaborate the local model of the situation under study.

Concept Modeling

The analytic tool applied to the qualitative survey data described above is concept modeling (Padilla, 1991b). Concept modeling entails both data reduction and interpretation. Data reduction involves the summarizing of details in the data through the organization of specific examples into super-categories and subcategories of meaning. The resulting set of categories implies a conceptual structure that can be made explicit through the specification of a set of relationships among the categories. When an investigator does so, the result is an interpretation of the situation that is empirically grounded in the dialogical and other data that can be brought to bear on the situation under study. The resulting concept model is by definition a local model of the focal social situation, which also constitutes the results of the qualitative survey.

Analysis is conducted on each of the columns in the unfolded data matrix. The simplest approach is to do a taxonomic analysis of the exemplars listed under a particular cover term, starting with the leading construct, i.e., the first column on the left side of the matrix. The taxonomic analysis results in a set of categories or types that includes all or most of the exemplars given in the data column. The taxonomic analysis thus accomplishes data reduction and contributes to a more abstract understanding of the situation. The features columns are analyzed in a similar manner so that the entire matrix is reduced to a set of categories and subcategories that summarize barriers faced by students on a given campus and how successful students overcome. In the case of an extended matrix, the analysis also summarizes the types of actions that the institution might take to mitigate the barriers and the likely unintended consequences of taking those actions. By finding relationships among the various categories resulting from the taxonomic analysis and other evidence available to the analyst (through observations, interviews, etc.), the analyst can elaborate the final local model of successful students for a given campus, such as the one shown in Figure 4.

Summary

A new approach has been proposed to increase the success of Chicana/o students in college. Rather than studying only students who leave college without completing their degrees, the new approach focuses on those students who do succeed in college, i.e., complete their programs of study. The campus experience for students is conceived as a "black box" in which students who enter the black box with varying characteristics and experiences leave the black box either with a degree or as dropouts, i.e., without completing a program of study. What accounts for the difference is the students' ability to avoid or overcome the barriers to degree attainment present on their campus. Students who are successful develop expertise sufficient to overcome the barriers to success. Such expertise entails possessing both theoretical and heuristic knowledge

relevant to the barriers. By taking appropriate actions based on this expertise, the students are able to successfully complete their programs of study. By implementing a qualitative survey on a given campus, a local model of successful students can be developed that describes the local barriers to student success, the expertise required to overcome them, the actions that successful students take, and the actions that the institution might take to help students overcome the barriers more easily.

Odell, M., & Mock, J. J. (Eds.). (1989). *A crucial agenda: Making colleges and universities work better for minority students.* Boulder, CO: Western Interstate Commission for Higher Education.

Olivas, M. A. (Ed.). (1986). *Latino college students.* New York: Teachers College Press, Columbia University.

Pace, C. R. (1980). *Measuring the quality of student effort.* Los Angeles: Laboratory for Research in Higher Education, University of California.

Padilla, R. V. (1991a). Assessing heuristic knowledge to enhance college students' success. In G. D. Keller, J. R. Deneen, & R. J. Magallán (Eds.), *Assessment and access: Hispanics in higher education* (pp. 81-92). Albany, NY: State University of New York Press.

Padilla, R. V. (1991b). Using computers to develop concept models of social situations. *Qualitative Sociology (Special Issue, Part I), 14*(3), 263-274.

Padilla, R. V. (1994). The unfolding matrix: A technique for qualitative data acquisition and analysis. In R. G. Burgess (Ed.), *Studies in qualitative methodology, Vol. 4. Issues in qualitative research* (pp. 273-285). Greenwich, CT: JAI Press.

Padilla, R. V., Treviño, J., Gonzalez, K., & Treviño, J. (1997). Developing local models of minority student success in college. *Journal of College Student Development, 38*(2), 124-135.

Rendón, L. I. (1994). Validating culturally diverse students: Toward a new model of learning and student development. *Innovative Higher Education, 19*(1), 33-51.

Romano-V., O. I. (Ed.). (1973). *Voices: Readings from El Grito 1967-1973 (2nd ed.).* Berkeley, CA: Quinto Sol Publications.

Rosales, A. F. (1996). *Chicano: The history of the Mexican American civil rights movement.* Houston, TX: Arte Público Press.

Spradley, J. P. (1979). *The ethnographic interview.* New York: Hort, Rinehart & Winston.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition (2nd ed.).* Chicago: University of Chicago Press.

Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. *The Review of Higher Education, 21*(2), 167-177.

References

Aguirre, A., Jr., & Martinez, R. O. (1993). *Chicanos in higher education: Issues and dilemmas for the 21st century* (ASHE-ERIC Higher Education Report No. 3). Washington, DC: The George Washington University Press, School of Education and Human Development.

Astin, A. W. (1982). *Minorities in American higher education.* San Francisco, CA: Jossey-Bass Publishers.

Attinasi, L. C., Jr. (1986). *Getting in: Chicano students' perceptions of their college-going behavior with implications for their freshman year experiences.* Unpublished doctoral dissertation, Arizona State University, Tempe.

Bothamley, J. (1993). *Dictionary of theories.* Washington, DC: Gale Research International Ltd.

Carter, D. J., & Wilson, R. (1997). *Minorities in higher education: 1996-97 fifteenth annual status report.* Washington, DC: American Council on Education.

Carter, T. P. (1970). *Mexican Americans in school: A history of educational neglect.* New York: College Entrance Examination Board.

Chicano Coordinating Council on Higher Education. (1969). *El plan de Santa Barbara: A Chicano plan for higher education.* Oakland, CA: La Causa Publications.

Durán, R. P. (1983). *Hispanics' education and background: Predictors of college achievement.* New York: College Entrance Examination Board.

Freire, P. (1971). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). New York: Herder and Herder.

Gándara, P. (1995). *Over the ivy walls: The educational mobility of low-income Chicanos.* Albany, NY: State University of New York Press.

Harmon, P., & King, D. (1985). *Expert systems.* New York: Wiley.

Johnson, H. S., & Hernández-M., W. J. (Eds.). (1970). *Educating the Mexican American.* Valley Forge, PA: Judson Press.

Justíz, M. J., Wilson, R., & Björk, L. G. (Eds.). (1994). *Minorities in higher education.* Phoenix, AZ: Oryx Press.

Lowe, M. (1989). *Chicano students' perceptions of their community college experience, with implications for persistence: A naturalistic inquiry.* Unpublished doctoral dissertation, Arizona State University, Tempe.

Melchior-Walsh, S. (1994). *Sociocultural alienation: Experiences of North American Indian students in higher education.* Unpublished doctoral dissertation, Arizona State University, Tempe.

Nora, A. (1987). Determinants of retention among Chicano college students. *Research in Higher Education, 26*(1), 31-59.